

Abstract of the Disclosure

The invention provides a method for magnetic imaging of an object. The method comprises monitoring a magnetic field of sources in the object at a plurality of magnetic detectors  
5 to obtain a corresponding plurality of sensor outputs, monitoring a position of the object while monitoring the magnetic field of the sources, modeling the magnetic field of the sources in the object as a gradient of a scalar potential, the scalar potential comprising a sum of spherical harmonic  
10 functions each multiplied by a corresponding coefficient, and, compensating for the position of the object by applying a transformation to the plurality of sensor outputs, the transformation including, at least in part, a spherical harmonic translation transformation.